

**ABSTRACT**

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***INSTRUMENTS AND TECHNIQUES FOR CONTROLLED REMOVAL OF  
EPIDERMAL LAYERS***

10 An instrument and technique for the removal of epidermal layers in a controlled manner utilizing a  
hand-held instrument with a working end that (i) a vacuum aspiration system, (ii) a source for delivery of a  
sterile fluids or pharmacological agents to the skin; and (iii) a skin interface surface in the working end that has  
specially shape structure for abrading surface layers of the patient's epidermis as the working end is moved over  
the patient's skin while at the same time causing rapid penetration of the fluids into the skin for therapeutic  
purposes. Movement of the working end across the skin causes abrasion of the surface layers in a path over the  
15 patient's skin. The method of the invention may be used in a periodic treatment for the removal of superficial  
skin layers that enhances the synthesis of dermal collagen aggregates by inducing the body's natural wound  
healing response. The method of the invention creates more normal dermal architectures in skin with limited  
depths of skin removal by the series of superficial treatments that may be comparable to the extent of  
neocollagenesis caused by a deep skin removal treatment (e.g., CO<sub>2</sub> laser skin removal).